



6560-50-P

## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 52**

#### **[EPA-R08-OAR-2017-0062; FRL-9967-62-Region 8]**

#### **Approval and Promulgation of Air Quality Implementation Plans; Montana; Regional Haze Federal Implementation Plan**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is finalizing revisions pursuant to section 110 of the Clean Air Act (CAA) to the Federal Implementation Plan (FIP) addressing regional haze in the State of Montana. The EPA promulgated a FIP on September 18, 2012, in response to the State's decision in 2006 to not submit a regional haze State Implementation Plan (SIP). We proposed revisions to that FIP on April 14, 2017, and are now finalizing those revisions. Specifically, the EPA is finalizing revisions to the FIP's requirement for best available retrofit technology (BART) for the Trident cement kiln owned and operated by Oldcastle Materials Cement Holdings, Inc. (Oldcastle), located in Three Forks, Montana. In response to a request from Oldcastle, and in light of new information that was not available at the time we originally promulgated the FIP, we are revising the nitrogen oxides (NO<sub>x</sub>) emission limit for the Trident cement kiln. We are also correcting errors we made in our FIP regarding the reasonable progress determination for the Blaine County #1 Compressor Station and the instructions for compliance determinations for particulate matter (PM) BART emission limits at electrical generating units (EGUs) and cement kilns. This action does not address the U.S. Court of

Appeals for the Ninth Circuit’s June 9, 2015 vacatur and remand of portions of the FIP regarding the Colstrip and Corette power plants; we plan to address the court’s remand in a separate action.

**DATES:** This rule is effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** The EPA has established a docket for this action under Docket ID No. EPA-R08-OAR-2017-0062. All documents in the docket are listed on the <http://www.regulations.gov> website. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available through <http://www.regulations.gov>, or please contact the person identified in the “For Further Information Contact” section for additional availability information.

**FOR FURTHER INFORMATION CONTACT:** Jaslyn Dobrahner, Air Program, EPA, Region 8, Mailcode 8P-AR, 1595 Wynkoop Street, Denver, Colorado, 80202-1129, (303) 312-6252, [dobrahner.jaslyn@epa.gov](mailto:dobrahner.jaslyn@epa.gov).

**SUPPLEMENTARY INFORMATION:** Throughout this document whenever “we,” “us,” or “our” is used, we mean the EPA.

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## **I. Proposed Action**

On September 18, 2012, the EPA promulgated a FIP that included a NO<sub>x</sub> BART emission limit for the Holcim (US), Inc., Trident cement kiln located in Three Forks, Montana.<sup>1,2</sup> On April 14, 2017, the EPA proposed to revise the 2012 FIP with respect to the BART emission limit for the Trident cement kiln.<sup>3</sup> Specifically, in response to newly available information regarding the efficiency of controls we determined in our 2012 FIP to be BART, the EPA proposed to revise the NO<sub>x</sub> emission limit from 6.5 lb/ton clinker to 7.6 lb/ton clinker (both as 30-day rolling averages). The EPA also proposed to correct errors we made in our FIP regarding the reasonable progress determination for the Blaine County #1 Compressor Station and in the instructions for compliance determinations for PM BART emission limits at EGUs and cement kilns. The proposed correction to our erroneous reasonable progress determination for the Blaine County #1 Compressor Station would result in the source no longer being subject to reasonable progress requirements and would thus remove the NO<sub>x</sub> emission limit of 21.8 lbs NO<sub>x</sub>/hr (average of three stack test runs). The proposed correction to the PM compliance determination instructions would include regulatory text that was inadvertently left out of the September 18, 2012 final rule and would allow sources to retain the PM stack testing schedule already established under state

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<sup>1</sup> Oldcastle Materials Cement Holdings, Inc., (Oldcastle) is the current owner and operator of the Trident cement kiln.

<sup>2</sup> 77 FR 57864.

<sup>3</sup> 82 FR 17948.

permits. The EPA proposed to revise the specific portions of Montana’s regional haze FIP under our general rulemaking and CAA-specific authorities, as appropriate. See 5 U.S.C. 551(5); 42 U.S.C. 7601(a)(1), 7410(c)(1), 7410(k)(6). We did not address the Ninth Circuit’s June 9, 2015 vacatur and remand of unrelated portions of the FIP in this action and plan to address the court’s remand in a separate action.

## **II. Background**

### **A. Requirements of the Clean Air Act and the EPA’s Regional Haze Rule**

In section 169A of the 1977 Amendments to the CAA, Congress created a program for protecting visibility in the nation’s national parks and wilderness areas. This section of the CAA establishes “as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from manmade air pollution.”<sup>4</sup> On December 2, 1980, the EPA promulgated regulations to address visibility impairment in Class I areas that is “reasonably attributable” to a single source or small group of sources, i.e., reasonably attributable visibility impairment.<sup>5</sup> These regulations represented the first phase in addressing visibility impairment. The EPA deferred action on regional haze that emanates from a variety of sources until monitoring, modeling and scientific knowledge about the relationships between pollutants and visibility impairment were improved.

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<sup>4</sup> 42 U.S.C. 7491(a). Areas designated as mandatory Class I Federal areas consist of national parks exceeding 6000 acres, wilderness areas and national memorial parks exceeding 5000 acres, and all international parks that were in existence on August 7, 1977. 42 U.S.C. 7472(a). In accordance with section 169A of the CAA, EPA, in consultation with the Department of Interior, promulgated a list of 156 areas where visibility is identified as an important value. 44 FR 69122 (November 30, 1979). The extent of a mandatory Class I area includes subsequent changes in boundaries, such as park expansions. 42 U.S.C. 7472(a). Although states and tribes may designate as Class I additional areas which they consider to have visibility as an important value, the requirements of the visibility program set forth in section 169A of the CAA apply only to “mandatory Class I Federal areas.” Each mandatory Class I Federal area is the responsibility of a “Federal Land Manager.” 42 U.S.C. 7602(i). When we use the term “Class I area” in this section, we mean a “mandatory Class I Federal area.”

<sup>5</sup> 45 FR 80084, 80084 (December 2, 1980).

Congress added section 169B to the CAA in 1990 to address regional haze issues. The EPA promulgated a rule to address regional haze on July 1, 1999.<sup>6</sup> The Regional Haze Rule (RHR) revised the existing visibility regulations to integrate provisions addressing regional haze and established a comprehensive visibility protection program for Class I areas. The requirements for regional haze, found at 40 CFR 51.308 and 51.309, are included in the EPA's visibility protection regulations at 40 CFR 51.300-51.309. The EPA revised the RHR on January 10, 2017.<sup>7</sup>

The CAA requires each state to develop a SIP to meet various air quality requirements, including protection of visibility.<sup>8</sup> Regional haze SIPs must assure reasonable progress toward the national goal of achieving natural visibility conditions in Class I areas. A state must submit its SIP and SIP revisions to the EPA for approval. Once approved, a SIP is enforceable by the EPA and citizens under the CAA; that is, the SIP is federally enforceable. If a state elects not to make a required SIP submittal, fails to make a required SIP submittal or if we find that a state's required submittal is incomplete or not approvable, then we must promulgate a FIP to fill this regulatory gap.<sup>9</sup> Montana is on the path towards a regional haze SIP and is working closely with the Region to replace all or portions of the FIP as soon as practicable.

B. Best Available Retrofit Technology (BART)

Section 169A of the CAA directs states, or the EPA if developing a FIP, to evaluate the use of retrofit controls at certain larger, often uncontrolled, older stationary sources in order to address visibility impacts from these sources. Specifically, section 169A(b)(2)(A) of the CAA requires states' implementation plans to contain such measures as may be necessary to make

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<sup>6</sup> 64 FR 35714, 35714 (July 1, 1999) (codified at 40 CFR part 51, subpart P).

<sup>7</sup> 82 FR 3078 (January 10, 2017).

<sup>8</sup> 42 U.S.C. 7410(a), 7491, and 7492 (a), CAA sections 110(a), 169A, and 169B.

<sup>9</sup> 42 U.S.C. 7410(c)(1).

reasonable progress toward the natural visibility goal, including a requirement that certain categories of existing major stationary sources built between 1962 and 1977 procure, install, and operate the “Best Available Retrofit Technology” as determined by the states, or in the case of a FIP, the EPA. Under the RHR, states or the EPA are directed to conduct BART determinations for such “BART-eligible” sources that may reasonably be anticipated to cause or contribute to any visibility impairment in a Class I area.

On July 6, 2005, the EPA published the Guidelines for BART Determinations under the RHR at appendix Y to 40 CFR part 51 (hereinafter referred to as the “BART Guidelines”) to assist states and the EPA in determining which sources should be subject to the BART requirements and the appropriate emission limits for each applicable source.<sup>10</sup> The process of establishing BART emission limitations follows three steps: first, identify the sources that meet the definition of “BART-eligible source” set forth in 40 CFR 51.301;<sup>11</sup> second, determine which of these sources “emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area” (a source which fits this description is “subject to BART”); and third, for each source subject to BART, identify the best available type and level of control for reducing emissions. Section 169A(g)(7) of the CAA requires that states, or the EPA if developing a FIP, must consider the following five factors in making BART determinations: (1) the costs of compliance; (2) the energy and non-air quality environmental impacts of compliance; (3) any existing pollution control technology in use at the source; (4) the remaining useful life of the source; and (5) the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology. States or the EPA must

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<sup>10</sup> 70 FR 39104.

<sup>11</sup> BART-eligible sources are those sources that have the potential to emit 250 tons or more of a visibility-impairing air pollutant, were not in operation prior to August 7, 1962, but were in existence on August 7, 1977, and whose operations fall within one or more of 26 specifically listed source categories. 40 CFR 51.301.

address all visibility-impairing pollutants emitted by a source in the BART determination process. The most significant visibility impairing pollutants are sulfur dioxide (SO<sub>2</sub>), NO<sub>x</sub>, and PM.

A SIP or FIP addressing regional haze must include source-specific BART emission limits and compliance schedules for each source subject to BART. Once a state or the EPA has made a BART determination, the BART controls must be installed and operated as expeditiously as practicable, but no later than five years after the date of the EPA's approval of the final SIP or the date of the EPA's promulgation of the FIP.<sup>12</sup> In addition to what is required by the RHR, general SIP requirements mandate that the SIP or FIP include all regulatory requirements related to monitoring, recordkeeping, and reporting for the BART emission limitations. See CAA section 110(a); 40 CFR part 51, subpart K.

#### C. Reasonable Progress Requirements

In addition to BART requirements, as mentioned previously each regional haze SIP or FIP must contain measures as necessary to make reasonable progress towards the national visibility goals. As part of determining what measures are necessary to make reasonable progress, the SIP or FIP must first identify anthropogenic sources of visibility impairment that are to be considered in developing the long-term strategy for addressing visibility impairment.<sup>13</sup> States or the EPA must then consider the four statutory reasonable progress factors in selecting control measures for inclusion in the long-term strategy—the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of potentially affected sources. See CAA section 169A(g)(1) (defining the reasonable progress factors); 40 CFR 51.308(d)(1)(i)(A). Finally, the SIP or FIP

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<sup>12</sup> CAA section 169A(g)(4); 40 CFR 51.308(e)(1)(iv).

<sup>13</sup> 40 CFR 51.308(d)(3)(iv).

must establish reasonable progress goals (RPGs) for each Class I area within the state for the plan implementation period (or “planning period”), based on the measures included in the long-term strategy.<sup>14</sup> If a RPG provides for a slower rate of improvement in visibility than the rate needed to attain the national goal by 2064, the SIP or FIP must demonstrate, based on the four reasonable progress factors, why the rate to attain the national goal by 2064 is not reasonable and the RPG is reasonable.<sup>15</sup>

D. Consultation with Federal Land Managers (FLMs)

The RHR requires that a state, or the EPA if promulgating a FIP that fills a gap in the SIP with respect to this requirement, consult with FLMs before adopting and submitting a required SIP or SIP revision, or a required FIP or FIP revision.<sup>16</sup> Further, the EPA must include in its proposed FIP a description of how it addressed any comments provided by the FLMs. Finally, a FIP must provide procedures for continuing consultation between the EPA and FLMs regarding the EPA’s FIP, visibility protection program, including development and review of FIP revisions, five-year progress reports, and the implementation of other programs having the potential to contribute to impairment of visibility in Class I areas.

E. Regulatory and Legal History of the 2012 Montana FIP

On September 18, 2012, the EPA promulgated a FIP to address Montana’s regional haze obligations that included BART emission limits for two power plants and two cement kilns, and an emission limit for a natural gas compressor station based on reasonable progress requirements.<sup>17</sup> The EPA took this action because Montana decided not to submit a regional haze

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<sup>14</sup> 40 CFR 51.308(d), (f).

<sup>15</sup> 40 CFR 51.308(d)(1)(ii).

<sup>16</sup> 40 CFR 51.308(i).

<sup>17</sup> 77 FR 57864.



SIP, knowing that as a result the EPA would be required to promulgate a FIP.<sup>18</sup> The BART emission limits for the two cement kilns and the reasonable progress requirements for the compressor station addressed in this action were not at issue in the petitions filed with the Ninth Circuit Court of Appeals.<sup>19</sup> The EPA plans to address the court's remand in a separate action.

### **III. Public Comments and EPA Responses**

Our proposed action provided a 45-day public comment period and an opportunity to request a public hearing. During this period, we received eight comments from the following four commenters: NorthWestern Energy (NorthWestern),<sup>20</sup> Montana Department of Environmental Quality (MT DEQ)<sup>21</sup> Oldcastle Materials Cement Holdings (Oldcastle; through Bison Engineering, Inc.),<sup>22</sup> and an anonymous public comment. We did not receive a request to hold a public hearing. The comments discussed portions of the proposal regarding the Trident cement kiln and Blaine County #1 Compressor station; we did not receive any comments on our proposed correction for PM compliance determinations for EGUs and cement kilns.

Comment: NorthWestern agreed with us that the Q/D ratio used to determine that the Blaine County #1 Compressor Station was subject to reasonable progress requirements, where “Q” represents actual NO<sub>x</sub> + SO<sub>2</sub> emissions in tons per year (tpy) and “D” represents the distance in kilometers from the Blaine County #1 Compressor Station to the nearest Class I area, was incorrect as published in our 2012 final rule. Specifically, Northwestern agrees that “D” should

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<sup>18</sup> Letter from Richard H. Oppen, Director, Montana Department of Environmental Quality to Laurel Dygowski, EPA Region 8 Air Program, June 19, 2006.

<sup>19</sup> Several parties petitioned the Ninth Circuit Court of Appeals to review the EPA's NO<sub>x</sub> and SO<sub>2</sub> BART determinations at the power plants, Colstrip and Corette (PPL Montana, LLC, the National Parks Conservation Association, Montana Environmental Information Center, and the Sierra Club). The court vacated the NO<sub>x</sub> and SO<sub>2</sub> BART emission limits at Colstrip Units 1 and 2 and Corette and remanded those portions of the FIP back to the EPA for further proceedings. National Parks Conservation Association v. EPA, 788 F.3d 1134 (9th Cir. 2015).

<sup>20</sup> Letter dated May 12, 2017, from Elizabeth Stimatz to Docket ID No. EPA-R08-OAR-2017-0062.

<sup>21</sup> Letter dated May 30, 2017, from David L. Klemp to Docket ID No. EPA-R08-OAR-2017-0062.

<sup>22</sup> Letter dated May 28, 2017, from Kevin M. Mathews, Bison Engineering, Inc, on behalf of Oldcastle Materials Cement Holdings to EPA, Region 8, Office of Air and Radiation.

be 133 kilometers instead of 107 kilometers, and that the revised Q/D ratio would be below the threshold for further evaluation for reasonable progress controls. As such, explained NorthWestern, it is only appropriate that the reasonable progress requirement of a NO<sub>x</sub> emission limit of 21.8 lb/hr (average of three stack test runs) as well as the corresponding compliance date, test method, monitoring, recordkeeping and reporting requirements for the Blaine County #1 Compressor Station be removed from the FIP. Additionally, NorthWestern contends that NO<sub>x</sub> + SO<sub>2</sub>, or “Q”, should be 745 tpy instead of 1,155 tpy with acknowledgement that this revision may not affect the EPA’s determination that the Blaine County #1 Compressor Station should be removed from the reasonable progress emission limit.

Response: We acknowledge NorthWestern’s support for our correction to “D” in the Q/D ratio for the Blaine County #1 Compressor Station that would effectively remove the source from reasonable progress NO<sub>x</sub> requirements for the first implementation period of the RHR. We also agree with NorthWestern that a revision to “Q” from 1,155 tpy to 745 tpy will not affect our determination that the Blaine County #1 Compressor Station should be removed from the reasonable progress limit; therefore, we are not addressing the issue of whether “Q” should be 745 tpy, as opposed to 1,155 tpy.

Comment: An anonymous commenter stated that the use of Q/D to measure the emissions of NO<sub>x</sub> and SO<sub>2</sub> is efficient; however, “D” can be calculated mistakenly which could ultimately affect the decision-making related to further investigation or evaluation.

Response: We agree with the commenter’s assertions that using an incorrect distance (D) can adversely impact decision making concerning further evaluation of a source.

Comment: MT DEQ expressed support for our proposal to amend the FIP before the compliance dates for the two affected facilities and appreciated our consideration of input from

regulated facilities in Montana. MT DEQ also noted that they are working closely with EPA staff to submit a regional haze SIP as soon as practicable.

Response: We acknowledge MT DEQ's support for our action and will continue working with MT DEQ as they develop a regional haze SIP.

Comment: Oldcastle advocated a BART emission limit of 8.3 lb NO<sub>x</sub>/ton clinker for the Trident kiln, as opposed to the limit proposed by the EPA of 7.6 lb/ton clinker (both as 30-day rolling averages). Oldcastle derived their proposed emission limit from a projected control efficiency of 40% when applied to a baseline emission rate of 13.9 lb/ton clinker (that is, 13.9 lb/ton clinker x [1-40/100] = 8.3 lb/ton clinker).

Response: We maintain that the appropriate BART emission limit for the Trident kiln is 7.6 lb NO<sub>x</sub>/ton clinker. In comparison to Oldcastle, we derived our proposed emission limit from the same projected control efficiency of 40%, but applied the control efficiency to a lower baseline emission rate of 12.6 lb/ton clinker (that is, 12.6 lb/ton clinker x [1-40/100] = 7.6 lb/ton clinker). Therefore, the proposed emission limits differ only because of the different baseline emission rates used to calculate them. We address the question of the baseline emission rate in a separate response.

The proposed emission limit for the Trident kiln of 7.6 lb/ton clinker is nearly equal to that for the Ash Grove Montana City kiln of 7.5 lb/ton clinker established through a control technology demonstration.<sup>23</sup> The Montana City kiln is of the same general design (long wet kiln) as the Trident kiln, operates in a similar environment, and is a direct competitor in the regional cement market. While the ultimate emission limit for the Montana City kiln was set through a control technology demonstration, rather than a BART determination, it is a reflection of the

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<sup>23</sup> EPA letter to Ash Grove Cement Co., December 29, 2016.

level of NO<sub>x</sub> control that is feasible with SNCR.<sup>24</sup> Moreover, as discussed in a later response, the two kilns have similar baseline emissions. Accordingly, we find that it is reasonable to expect a similar level of controlled NO<sub>x</sub> emissions from the Trident kiln when equipped with SNCR.

As stated in our proposed rule, it is challenging to predict the performance of SNCR for long cement kilns. For this reason, in the proposed rule, the EPA invited comment on whether, in place of the BART emission limit of 7.6 lb NO<sub>x</sub>/ton clinker, the emission limit for the Trident kiln should be established through a control technology demonstration in a manner similar to that required by consent decrees for the Ash Grove Montana City kiln and other long kilns. Such an approach would have served to demonstrate with some clarity the NO<sub>x</sub> emission limit for the Trident kiln. As discussed in a later response, Oldcastle strongly felt that a requirement to use this approach was unnecessary. In the absence of support for a control technology demonstration from Oldcastle, or from other commenters, and for reasons stated elsewhere in response to comments, the EPA is finalizing an emission limit of 7.6 lb/ton clinker.

Comment: Oldcastle agreed with the EPA's assessment in the proposed rule that SNCR is theoretically capable of reducing NO<sub>x</sub> emissions from a long wet cement kiln by 40% on average. Oldcastle also recognized that the EPA largely based this assumption on the performance of SNCR demonstrated at the long wet kiln located at the Ash Grove Montana City facility.

Response: The 40% reduction is a demonstrated, rather than theoretical, control effectiveness for SNCR when applied to long cement kilns. As acknowledged by the commenter, this level of control was demonstrated at the Montana City long wet kiln in association with a control technology demonstration.

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<sup>24</sup> Prior to the control technology demonstration, the EPA established a NO<sub>x</sub> BART emission limit of 8.0 lb/ton clinker for the Montana City kiln.

Moreover, in arriving at an assumed control effectiveness of 40%, the EPA's conclusions were not strictly based on the performance of SNCR at the Montana City kiln. As explained in the proposal, we also re-evaluated the performance of SNCR at the three Ash Grove long wet kilns in Midlothian, Texas, that served as the basis for the emission limit for Trident in our 2012 final rule. In addition, we reviewed the performance of SNCR at several LaFarge kilns subject to control technology demonstrations. The EPA's evaluation of the control effectiveness of SNCR when applied to long cement kilns is further discussed in the Technical Support Document (TSD) associated with this rulemaking.<sup>25</sup>

Comment: Oldcastle disagreed with the baseline emission rate of 12.6 lb/ton clinker (as the 99<sup>th</sup> percentile 30-day rolling average) that, after a 40% NO<sub>x</sub> reduction with SNCR, the EPA used to calculate the proposed emission limit of 7.6 lb/ton clinker. Oldcastle stated that the appropriate baseline emission rate is 13.9 lb/ton clinker, reflecting a period during late 2012 during which optimal conditions were disrupted by ash ring build-up on the interior wall of the kiln, leading to elevated NO<sub>x</sub> emissions. Oldcastle also disagreed with the EPA's characterization of operations during late 2012 as resulting from "exceptional circumstances" that should be excluded from the calculation of baseline emissions, and with the EPA's statements in the proposed rule that such conditions could be avoided by proper kiln operation and maintenance. Oldcastle stated that ash rings are part of normal long-term operations and occur approximately twice every year. Finally, in response to the EPA's statements in the proposal that a violation of the emission limit could be prevented by shutting down the kiln to remove ash rings, Oldcastle commented that multiple factors (e.g., such as harm to the kiln, baghouse, and other equipment) must be considered before performing an unplanned shutdown.

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<sup>25</sup> Refer to Technical Support Document—Oldcastle Trident Federal Implementation Plan Revision, March 8, 2017 ("TSD for Oldcastle"; EPA docket ID EPA-R08-OAR-2017-0062-0042).

Oldcastle commented that if elevated NO<sub>x</sub> emissions do occur as the result of ash ring build-up, an unplanned shut down could be required purely to ensure compliance with the emission limit.

Response: We disagree that the appropriate baseline emission rate for the purpose of calculating the NO<sub>x</sub> emission limit should be 13.9 lb/ton clinker. In our proposed rule, we explained the reasons for retaining the baseline emission rate of 12.6 lb/ton from the 2012 rule.<sup>26,27</sup> Much of that explanation was in response to a letter submitted by Oldcastle (through Bison Engineering) and dated February 13, 2017, that among other things addressed the baseline emission rate. Oldcastle's comments on the proposed rule largely repeat points made in their February 13, 2017 letter, and do not present new information that the EPA did not address in the proposed rule, or that would lead the EPA to choose a different baseline emission rate (and thereby a different emission limit). As such, in responding to Oldcastle's comments here, we repeat much of the discussion from our proposed rule.

In order to determine a representative baseline NO<sub>x</sub> emissions rate for the Trident kiln, the EPA reviewed nine years of actual emissions data (2008-2016, as the 99<sup>th</sup> percentile 30-day rolling average).<sup>28</sup> This expanded on the period of actual emissions data used to set the baseline in the 2012 rule, which was limited to 2008-2011.

The EPA recognizes that ash rings are part of normal long-term operations for long kilns, and thus the BART emission limit should, generally speaking, allow operation of a kiln while a typical ash ring is present, provided that the SNCR system is reducing emissions during the ash ring event as much as it reasonably can. Accordingly, the EPA has considered the ash ring issue

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<sup>26</sup> The original source of the 12.6 lb/ton clinker was a submittal from the previous owner of the Trident facility, Holcim, Inc. See footnote 93 in 2012 proposed rule at 77 FR 24019.

<sup>27</sup> See proposed rule at 82 FR 17953/4.

<sup>28</sup> See TSD for Oldcastle, pages 8-10.

when establishing the single value of the baseline emission rate upon which the BART emission limit is based.

The original emissions baseline period of 2008–2011 used in the 2012 FIP, together with the emissions for 2013 through 2016, yield eight years of emissions data in support of the 12.6 lb/ton clinker baseline used by the EPA.<sup>29</sup> Assuming, as asserted by Oldcastle, that ash rings occur approximately twice per year, some 16 ash ring events can be statistically expected to have occurred during this eight-year period.

From the set of approximately 2,400 values for 30-day average emission during the eight-year period,<sup>30</sup> the EPA has chosen the 99<sup>th</sup> percentile value, 12.6 lb/ton clinker, as the baseline emission rate for setting the BART emission limit (by reducing this value by 40%). We believe this is a reasonable choice in that it will mean that for most ash ring events compliance with the BART emissions limit would not necessitate removing the ash ring earlier than when the kiln operators have seen fit to remove similar ash rings during the eight years of operation of the kiln. Oldcastle is arguing that the baseline emission rate should instead be set at 13.9 lb/ton of clinker. Notably, there were about 29 30-day average emission values above 13.9 lb/ton during the 2012 ash ring event. Under both the emission limit we proposed and the emission limit favored by Oldcastle, if an ash ring similar to the 2012 event were to occur in the future, the BART emission limit could not be met merely by achieving 40% emission reductions via SNCR. Thus, Oldcastle and we agree that not every ash ring event must be accommodated by the BART emission limit, and Oldcastle and we agree that Oldcastle should be expected to intervene, differently than the kiln operator actually did in 2012, if an event like the one that occurred in 2012 occurs again

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<sup>29</sup> The baseline periods of 2008-2011 and 2013-2016 yield an identical baseline emission rate of 12.6 lb/ton clinker (as the 99<sup>th</sup> percentile 30-day rolling average). Data for 2012, while reviewed, was not included in the calculation of the baseline due to the unusually elevated NO<sub>x</sub> emissions that occurred late in that year.

<sup>30</sup> Does not include days when the kiln was not operated.

(while also applying SNCR). Where Oldcastle and we disagree is that Oldcastle favors a higher BART limit that would allow Oldcastle to take no action, which is different from the operator's past ash ring-correcting practices with respect to ash ring events that have more moderate effects on emissions than the 2012 ash ring event. While we do not have clear evidence of whether and when such more moderate ash rings events have occurred in the past and what effects they had on NO<sub>x</sub> emissions, it is reasonable to predict that in the future there may be events for which our proposed emission limit would require corrective action (beyond the application of SNCR) that is different than the operator's ash ring-correcting practices of the past, while the emission limit favored by Oldcastle would not require this. The considerations on how to respond to Oldcastle's comments on this issue are discussed in more detail in the paragraphs that follow.

The representativeness of the baseline NO<sub>x</sub> emission rate of 12.6 lb/ton clinker used for setting the emission limit at the Trident kiln is supported by the nearly identical emissions observed at the Montana City kiln in association with the control technology demonstration. During the baseline collection period for the Montana City kiln, between March and August 2014, the 99<sup>th</sup> percentile 30-day rolling average emission rate without SNCR applied was 12.8 lb NO<sub>x</sub>/ton clinker.<sup>31</sup> Though this represents a shorter baseline period than that considered for Trident, it reinforces that the two kilns should be subject to similar emission limits after being equipped with SNCR. By contrast, using the higher baseline emission rate of 13.9 lb/ton clinker for Trident would result in a relatively large difference between the emission limits – 7.5 lb/ton clinker for Montana City, and 8.3 lb/ton clinker for Trident.

Moreover, if the EPA were to use the higher baseline emission rate of 13.9 lb/ton clinker (again yielding an emission limit of 8.3 lb/ton clinker at a 40% reduction with SNCR), then the

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<sup>31</sup> See spreadsheet titled "Summary of Ash Grove Montana City Control Technology Demonstration Data.xlsx," March 8, 2017, prepared by the EPA.



emission limit would be overly lenient during periods of otherwise normal kiln operation, and the SNCR could be operated at efficiencies well below the demonstrated level of control effectiveness. That is, when baseline emissions are at otherwise normal levels, the control effectiveness of the SNCR could be reduced below the level at which it is capable of performing by reducing the amount of reagent injected into the kiln, while still meeting the emission limit. For example, consider if SNCR had been operated in 2016, the last full year for which emissions data is available, where the uncontrolled 30-day rolling average emissions ranged from 8.9 to 12.6 lb/ton clinker, with an average of 10.4 lb/ton clinker.<sup>32</sup> At an emission limit of 8.3 lb/ton clinker (corresponding to a 13.9 lb/ton clinker baseline), and depending on the 30-day period, the SNCR could have been operated at a control efficiency of 6.7% to 34.1%, and at an average of only 20.5%. Indeed, for long periods, the SNCR could have been operated well below the 40% reduction that the EPA has concluded, and Oldcastle has agreed, SNCR can achieve. Though this opportunity to operate the SNCR system at a lesser level of effectiveness would also occur at the proposed emission limit of 7.6 lb/ton, it would occur less frequently and the effect would be much less pronounced, yet the proposed emission limit of 7.6 lb/ton still allows for normal variation in uncontrolled NO<sub>x</sub> emissions (to include emissions variation due to ash ring formation). In essence, allowing for the higher baseline advocated by the commenter would unnecessarily undermine the basic intent of the BART controls: to lower emissions that impact visibility using the best available control technology.

In conclusion, the EPA's thorough consideration of nine years of actual emissions data and the application of a 40% reduction to the 99<sup>th</sup> percentile value of the historical set of 30-day average emission values, leads to an appropriate BART emission limit for the Trident kiln.

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<sup>32</sup> See spreadsheet titled "Oldcastle Trident NO<sub>x</sub> emissions 2008 through 2016 with additions by EPA.xlsx," March 8, 2017, prepared by the EPA (EPA docket ID EPA-R08-OAR-2017-0062-0039).

Comment: Oldcastle stated that the EPA's proposed BART determination of 7.6 lb/ton clinker did not address control costs or visibility improvement. They commented that, based on their updated analysis,<sup>33</sup> the costs associated with the emission limit are not justified by the visibility benefits.

Response: We disagree with the implication that it was necessary to re-weigh the costs and visibility benefits of SNCR in this action, which was not a new or updated control technology determination but rather a revision to how the EPA calculated the ultimate emission limit given the technology selected pursuant to our previous five-factor analysis. See 82 FR 17948, 17951. The BART Guidelines provide that states or the EPA, when evaluating technically feasible technologies pursuant to a five-factor analysis, perform the analysis "tak[ing] into account the most stringent emission control level that the technology is capable of achieving." 40 CFR part 51, appendix Y, IV.D.1. The Guidelines further state that the control effectiveness of a technology should be informed by, among other things, recent regulatory decisions, engineering estimates, and the experience of other sources. Id. The EPA determined in 2012 that BART is based on SNCR with a 50% control effectiveness for the Trident kiln, see 77 FR 57864, 57882. No party requested judicial review of that determination. However, since the time of our 2012 rule, sources and the EPA have gained further experience related to using SNCR to control NO<sub>x</sub> from long wet kilns; and additional data and experience indicate that the most stringent level of emission control possible under these circumstances may not be 50%, as previously assumed. However, as Oldcastle assured the EPA when they first approached us to request a revised NO<sub>x</sub> emission limit for the Trident kiln in May 2016 and throughout the process of revising the

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<sup>33</sup> Oldcastle is referring to submittals to the EPA that were cited in the proposed rule. See footnote 22 at 82 FR 17952. These submittals can be found in the docket.

emission limit, they are committed to installing and operating SNCR on the kiln.<sup>34</sup> Most recently, Oldcastle restated their commitment to doing so in comments on the proposed rule.<sup>35</sup> For this reason, and as we stated in the proposed rule, the EPA did not find it necessary or appropriate to revisit the selection of SNCR as the BART control technology was determined in the 2012 rule.

Additionally, given that Oldcastle has committed to the most effective control technology for long kilns, SNCR, and in fact had largely completed construction by the time we published the proposed rule in April 2017, there would be little merit in retrospectively assessing less effective control technologies in an updated five-factor BART analysis. The BART Guidelines reflect that it is reasonable, if a source has already committed to a BART determination that consists of the most stringent controls available, to forgo completing the remaining analyses pursuant to a BART determination. 40 CFR part 51, appendix Y, IV.D.1. Oldcastle has communicated to the EPA that it is committed to installing and operating SNCR on the Trident kiln. Therefore, consistent with the reasoning of the BART Guidelines, we found that it is not necessary in this instance to revisit the cost effectiveness and visibility benefits associated with SNCR, and instead as explained in our proposal, constrained this FIP revision to considering only the appropriate control effectiveness associated with that control technology.

Because Oldcastle has committed to installing SNCR as the BART control, it is only the emission limit that is in dispute. However, even if we had revisited the full five-factor BART analysis in this action, it is very likely we would have arrived at the same emission limit we are finalizing today. The 2012 rule established an emission limit of 6.5 lb/ton clinker, while we have proposed 7.6 lb/ton clinker, and Oldcastle advocates for 8.3 lb/ton clinker. Note that compliance

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<sup>34</sup> See, e.g., Letter dated Sept. 30, 2016, from Kevin M. Mathews, Bison Engineering, Inc. on behalf of Oldcastle Materials Cement Holdings to EPA, Region 8, Office of Air and Radiation, pages 2, 6, 19.

<sup>35</sup> Letter dated May 28, 2017, from Kevin M. Mathews, Bison Engineering, Inc. on behalf of Oldcastle Materials Cement Holdings to EPA, Region 8, Office of Air and Radiation, page 3.

with a more stringent emission limit requires that more reagent be injected into the kiln to reduce NO<sub>x</sub> than for a less stringent emission limit, thereby increasing Oldcastle's annual costs to operate the SNCR. Though annual costs would increase with a more stringent emission limit, NO<sub>x</sub> reductions can generally be expected to increase in proportion to those costs. An exception is if the amount of reagent injected is increased to the point that it is no longer effective at reducing NO<sub>x</sub> and leads to excessive ammonia slip (that is, wasted reagent). However, as demonstrated at the Montana City kiln, a 40% reduction in NO<sub>x</sub>, which serves as the basis for Trident's emission limit, can be achieved at acceptable levels of ammonia slip.<sup>36</sup> Therefore, the cost effectiveness of SNCR, when calculated as the costs per ton of pollutant removed (i.e., \$/ton) in accordance with the BART Guidelines,<sup>37</sup> would be roughly the same at any of the three emission limits under consideration.<sup>38</sup> Further, due to the increase in NO<sub>x</sub> reductions, greater visibility benefits would be expected to occur as the emission limit becomes more stringent. Because the cost effectiveness would remain roughly constant, while the visibility benefits would increase, we see no reason that the SNCR should be operated below the level of control effectiveness demonstrated for the technology (i.e., a 40% NO<sub>x</sub> reduction). Therefore, we are finalizing an emission limit for the Trident kiln consistent with that level of control: 7.6 lb/ton clinker.

Comment: Oldcastle commented that they strongly feel that a requirement to conduct a control technology demonstration, such as that conducted for the Ash Grove Montana City kiln under consent decree, is problematic and unnecessary. Further, they commented that if such a control technology demonstration were to be conducted, the results would likely be similar to

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<sup>36</sup> Refer to proposed rule at 71 FR 17953.

<sup>37</sup> 70 FR 39167.

<sup>38</sup> More precisely, the cost effectiveness (as \$/ton) would slightly decrease in value at a more stringent emission limit because the fixed capital costs would be distributed over a greater number of tons of NO<sub>x</sub> reduced.

those for the Montana City kiln. Finally, Oldcastle stated that a control technology demonstration would not address the economic and operational concerns (e.g., ash rings) that they also raised in comments.

Response: Because Oldcastle, or other commenters, have not expressed support for a control technology demonstration, and because the results from the Montana City kiln demonstration can effectively and reasonably be applied to the Trident kiln, we are not requiring such a demonstration for the Trident kiln. Instead, we are finalizing an emission limit of 7.6 lb/ton clinker.

#### **IV. Final Action**

The EPA is taking final action to revise portions of the Montana Regional Haze FIP. Specifically, the EPA is revising the BART NO<sub>x</sub> emission limit in the second line of the table in 40 CFR 52.1396(c)(2) for the Oldcastle Trident kiln from 6.5 lb NO<sub>x</sub>/ton clinker to 7.6 lb NO<sub>x</sub>/ton clinker (30-day rolling averages).<sup>39</sup> We are also making two corrections: (1) removing the reasonable progress NO<sub>x</sub> emission limit of 21.8 lb/hr (average of three stack test runs) found at 40 CFR 52.1396(c)(3) for the Blaine County #1 Compressor Station, Engine #1 and #2, including removing the corresponding compliance date at 40 CFR 52.1396(d), test method (40 CFR 52.1396(e)(5)), testing requirements (40 CFR 52.1396(j)) and monitoring, recordkeeping, and reporting requirements found at 40 CFR 52.1396(k) from the FIP, and (2) revising the regulatory text found at 40 CFR 52.1396(f)(1) and (2) related to compliance determinations for particulate matter for electrical generating units and cement kilns. Finally, we are changing “Holcim” references to “Oldcastle” and “Trident” at 40 CFR 52.1396(a), (c)(2), and (f)(2)(ii) and

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<sup>39</sup> The table in 40 CFR 52.1396(c)(2) currently refers to Holcim (US) Inc. As described later on, the EPA is also updating this table to reflect the Trident kiln’s new ownership.

replacing the compliance date timeframes in 40 CFR 52.1396(d) with the actual compliance dates based on the effective date of the 2012 FIP.

We find that the revisions will not interfere with any applicable requirement concerning attainment, reasonable progress, or any other applicable requirement of the CAA, because the FIP, as revised by this action, will result in a significant reduction in emissions compared to current levels. Although this revision will allow an increase in emissions after October 2017 as compared to the prior FIP, the FIP as a whole will still result in overall NO<sub>x</sub> and SO<sub>2</sub> reductions compared to those currently allowed. In addition, the areas where the Trident cement kiln and the Blaine County #1 Compressor Station are located have not been designated nonattainment for any National Ambient Air Quality Standards (NAAQS). We also find that we satisfied the applicable requirements for coordination and consultation with the Federal Land Managers (FLMs) because we described the proposed revisions to the regional haze FIP with the Forest Service, the Fish and Wildlife Service and the National Park Service on Thursday, March 2, 2017, and sent a draft of our proposed regional haze FIP revisions to the Forest Service, the Fish and Wildlife Service and the National Park Service on March 9, 2017.<sup>40</sup>

## **V. Statutory and Executive Order Reviews**

Additional information about these statutes and Executive Orders can be found at <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.

### **A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review**

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<sup>40</sup> We did not receive any formal comments from the FLM agencies.

This action is not a “significant regulatory action” under the terms of Executive Order 12866<sup>41</sup> and was therefore not submitted to the Office of Management and Budget (OMB) for review. This final rule revision applies to only five facilities in the State of Montana. It is therefore not a rule of general applicability.

B. Executive Order 13711: Reducing Regulation and Controlling Regulatory Costs

This action is not expected to be an Executive Order 13771 action because it is not subject to Executive Order 12866.

C. Paperwork Reduction Act

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act (PRA).<sup>42</sup> Because this final rule revises the reporting requirements for 4 facilities and removes all requirements for an additional facility, the PRA does not apply.

D. Regulatory Flexibility Act

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This rule does not impose any requirements or create impacts on small entities as no small entities are subject to the requirements of this rule.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The revisions to the FIP reduce private sector expenditures. Additionally, we do not foresee significant costs (if any) for state and local governments.

F. Executive Order 13132: Federalism

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<sup>41</sup> 58 FR 51735, 51738 (October 4, 1993).

<sup>42</sup> 44 U.S.C. 3501 et seq.

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

G. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments. Thus, Executive Order 13175 does not apply to this rule. However, the EPA did send letters to each of the Montana tribes explaining our regional haze FIP revision action and offering consultation; however, no tribe asked for consultation.

H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

This action is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997). The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 (66 FR 28355 (May 22, 2001)), because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.



K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). As explained previously, the Montana Regional Haze FIP, as revised by this action, will result in a significant reduction in emissions compared to current levels.

L. Congressional Review Act (CRA)

This rule is exempt from the CRA because it is a rule of particular applicability.

M. Judicial Review

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Pursuant to CAA section 307(d)(1)(B), this section is subject to the requirements of the CAA section 307(d) as it promulgates a FIP under CAA section 110(c). Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. See CAA section 307(b)(2).

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference,  
Intergovernmental relations, Nitrogen dioxide, Particulate matter, Sulfur oxides.

Authority: 42 U.S.C. 7401 et seq.

Dated: September 1, 2017.

E. Scott Pruitt,  
Administrator.

40 CFR part 52 is amended as follows:

**PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS**

1. The authority citation for part 52 continues to read as follows:

**Authority:** 42 U.S.C. 7401 et seq.

**Subpart BB—Montana**

2. Section 52.1396 is amended by:

- a. Revising paragraph (a);
- b. Revising paragraph (c)(2);
- c. Removing and reserving paragraph (c)(3);
- d. Revising paragraph (d);
- e. Removing paragraph (e)(5);
- f. Revising the heading of paragraph (f) and paragraphs (f)(1), (f)(2) introductory text, and (f)(2)(ii); and
- g. Removing and reserving paragraphs (j) and (k).

The revisions read as follows:

**§52.1396 Federal implementation plan for regional haze.**

(a) Applicability. This section applies to each owner and operator of the following coal-fired electric generating units (EGUs) in the State of Montana: PPL Montana, LLC, Colstrip Power Plant, Units 1, 2; and PPL Montana, LLC, JE Corette Steam Electric Station. This section also applies to each owner and operator of cement kilns at the following cement production plants: Ash Grove Cement, Montana City Plant; and Oldcastle Materials Cement Holdings, Inc., Trident Plant. This section also applies to each owner and operator of CFAC and M2 Green Redevelopment LLC, Missoula site.

**NOTE TO PARAGRAPH (a):** On June 9, 2015, the NO<sub>x</sub> and SO<sub>2</sub> emission limits for Colstrip Units 1 and 2 and Corette were vacated by court order.

\* \* \* \* \*

(c) \* \* \*

(2) The owners/operators of cement kilns subject to this section shall not emit or cause to be emitted PM, SO<sub>2</sub> or NO<sub>x</sub> in excess of the following limitations, in pounds per ton of clinker produced, averaged over a rolling 30-day period for SO<sub>2</sub> and NO<sub>x</sub>:

Source name	PM emission limit	SO <sub>2</sub> emission limit (lb/ton clinker)	NO <sub>x</sub> emission limit (lb/ton clinker)
Ash Grove, Montana City	If the process weight rate of the kiln is less than or equal to 30 tons per hour, then the emission limit shall be calculated using $E = 4.10p^{0.67}$ where E = rate of emission in pounds per hour and p = process weight rate in tons per hour; however, if the process weight rate of the kiln is greater than 30 tons per hour, then the emission limit shall be calculated using $E = 55.0p^{0.11} - 40$ , where E = rate of emission in pounds per hour and P = process weight rate in tons per hour.	11.5	8.0
Oldcastle, Trident	0.77 lb/ton clinker	1.3	7.6

\* \* \* \* \*

(d) Compliance date. The owners and operators of the BART sources subject to this section shall comply with the emission limitations and other requirements of this section as follows, unless otherwise indicated in specific paragraphs: Compliance with PM emission limits is required by November 17, 2012. Compliance with SO<sub>2</sub> and NO<sub>x</sub> emission limits is required by April 16,

2013, unless installation of additional emission controls is necessary to comply with emission limitations under this rule, in which case compliance is required by October 18, 2017.

**NOTE TO PARAGRAPH (d):** On June 9, 2015, the NO<sub>x</sub> and SO<sub>2</sub> emission limits, and thereby compliance dates, for Colstrip Units 1 and 2 and Corette were vacated by court order.

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(f) Compliance determinations for particulate matter—(1) EGU particulate matter BART emission limits. Compliance with the particulate matter BART emission limits for each EGU BART unit shall be determined by the owner/operator from annual performance stack tests. Within 60 days of the compliance deadline specified in paragraph (d) of this section, and on at least an annual basis thereafter, the owner/operator of each unit shall conduct a stack test on each unit to measure the particulate emissions using EPA Method 5, 5B, 5D, or 17, as appropriate, in 40 CFR part 60, appendix A. A test shall consist of three runs, with each run at least 120 minutes in duration and each run collecting a minimum sample of 60 dry standard cubic feet. Results shall be reported by the owner/operator in lb/MMBtu. The results from a stack test meeting the requirements of this paragraph (f)(1) that was completed within 12 months prior to the compliance deadline can be used in lieu of the first stack test required. If this option is chosen, then the next annual stack test shall be due no more than 12 months after the stack test that was used. In addition to annual stack tests, owner/operator shall monitor particulate emissions for compliance with the BART emission limits in accordance with the applicable Compliance Assurance Monitoring (CAM) plan developed and approved in accordance with 40 CFR part 64.

(2) Cement kiln particulate matter BART emission limits. Compliance with the particulate matter BART emission limits for each cement kiln shall be determined by the owner/operator from annual performance stack tests. Within 60 days of the compliance deadline specified in

paragraph (d) of this section, and on at least an annual basis thereafter, the owner/operator of each unit shall conduct a stack test on each unit to measure particulate matter emissions using EPA Method 5, 5B, 5D, or 17, as appropriate, in 40 CFR part 60, appendix A. A test shall consist of three runs, with each run at least 120 minutes in duration and each run collecting a minimum sample of 60 dry standard cubic feet. The average of the results of three test runs shall be used by the owner/operator for demonstrating compliance. The results from a stack test meeting the requirements of this paragraph (f)(2) that was completed within 12 months prior to the compliance deadline can be used in lieu of the first stack test required. If this option is chosen, then the next annual stack test shall be due no more than 12 months after the stack test that was used. Clinker production shall be determined in accordance with the requirements found at 40 CFR 60.63(b). Results of each test shall be reported by the owner/operator as the average of three valid test runs. In addition to annual stack tests, owner/operator shall monitor particulate emissions for compliance with the BART emission limits in accordance with the applicable Compliance Assurance Monitoring (CAM) plan developed and approved in accordance with 40 CFR part 64.

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(ii) For Trident, the emission rate (E) of particulate matter shall be computed by the owner/operator for each run in lb/ton clinker, using the following equation:

$$E = (C_s Q_s) / PK$$

Where:

E = emission rate of PM, lb/ton of clinker produced;

C<sub>s</sub> = concentration of PM in grains per standard cubic foot (gr/scf);

$Q_s$  = volumetric flow rate of effluent gas, where  $C_s$  and  $Q_s$  are on the same basis (either wet or dry), scf/hr;

$P$  = total kiln clinker production, tons/hr; and

$K$  = conversion factor, 7000 gr/lb.

\* \* \* \* \*

[FR Doc. 2017-19210 Filed: 9/11/2017 8:45 am; Publication Date: 9/12/2017]